

### Amendments to the Claims

This listing of claims will replace all prior versions of claims in the application:

#### **Listing of Claims**

1. (currently amended) An expression cassette capable of directing heterologous protein expression in plant roots, comprising
  - a) ~~nucleotides encoding a~~ MsPRP2 promoter or a fragment thereof, said promoter or fragment comprising a portion of SEQ ID NO:1; and
  - b) ~~a~~ MsPRP2 secretion signal; and
  - c) ~~nucleotides comprising a gene forencoding~~ a heterologous protein, ~~said nucleotides encoding the heterologous protein being operably~~ linked to the MsPRP2 nucleotides promoter.
2. (currently amended) An expression cassette capable of directing heterologous protein expression in plant roots, comprising
  - a) ~~nucleotides encoding a~~ MsPRP2 promoter of MsPRP2 or a fragment thereof;
  - b) optionally ~~nucleotides encoding~~ a ribosomal binding site;
  - c) ~~optionally~~ nucleotides encoding a MsPRP2 secretion signal; and
  - d) nucleotides encoding a heterologous protein, said ~~protein-nucleotides~~ encoding the heterologous protein being operably linked to the MsPRP2 promoter ~~nucleotides~~.
3. (currently amended) The expression cassette of claim 1 further comprising nucleotides encoding transcription factor Alfin1, the nucleotides encoding Alfin1 ~~nucleotides being~~ operably linked to another promoter such that the other promoter causes the transcription factor Alfin1 to be overexpressed.
4. (previously presented) A plant transfected with the expression cassette of claim 1.
5. (previously presented) A plant cell culture transfected with the expression cassette of claim 1.

6. (currently amended) A method of producing a protein recombinantly in plant cells, the method comprising:

- a. growing plant cells which have been transfected with an expression cassette comprising:
  - i. ~~nucleotides encoding a MsPRP2 promoter of MsPRP2 or a fragment thereof; and~~
  - ii. nucleotides encoding a MsPRP2 secretion signal, wherein the nucleotides encoding the MsPRP2 secretion signal are downstream from the MsPRP2 promoter or fragment thereof; and
  - iii. nucleotides encoding [[the]]a protein, said protein-nucleotides encoding the protein being operably linked to the MsPRP2 promoter-nucleotides; and
- b. growing the transformed cells, during which the transformed cells produce the protein.

7. (currently amended) A method of producing a secreted protein from plant cells, the method comprising:

- a. growing plant cells which have been transfected with an expression cassette comprising:
  - i. ~~nucleotides encoding a MsPRP2 promoter of MsPRP2 or a fragment thereof;~~
  - ii. nucleotides encoding a MsPRP2 secretion signal, wherein the nucleotides encoding the MsPRP2 secretion signal—which are downstream from the MsPRP2 promoter or fragment thereof; and
  - iii. nucleotides encoding [[the]]a protein, said protein-nucleotides encoding the protein being operably linked to the MsPRP2 promoter-nucleotides; and
- b. growing the transformed cells, during which the transformed cells produce the protein.

8. (currently amended) Seeds for plants producing a heterologous protein in its roots, the seeds comprising transgenic plant cells which have been transformed with an expression cassette comprising nucleotides encoding a MsPRP2 promoter of MsPRP2 or a fragment thereof, nucleotides encoding [[the]]a heterologous protein, and optionally a MsPRP2 plant secretion

signal, the ~~protein~~-nucleotides encoding the heterologous protein being operably linked to the MsPRP2 promoter ~~nucleotides~~ and the secretion signal.

9. (currently amended) A method of bioremediating a field, the method comprising planting the transgenic seeds of claim 8 ~~with or without the secretion signal~~, wherein planting the transgenic seeds bioremediates the field.